



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,532	01/20/2004	Jari Vallstrom	879A.0019.U1(US)	3289
29683 7590 10/21/2009 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212				
EXAMINER NGUYEN, TOAN D				
ART UNIT		PAPER NUMBER		
2472				
MAIL DATE		DELIVERY MODE		
10/21/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,532

Applicant(s)

VALLSTROM ET AL.

Examiner

TOAN D. NGUYEN

Art Unit

2472

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 06/19/09 have been fully considered but they are not persuasive.

The applicant argues with respect to claims 5, 16 and 17 on page 6, ninth paragraph that Turner does not disclose (or even suggest) any divergent protocols from the prior art to be used in the air interface between the mobile terminal and the base station, and further argues that Turner is fully silent about the air interface between the mobile station terminal and the base station. The examiner disagrees. The examiner could not find the limitation feature "divergent protocols to be used in the air interface between the mobile terminal and the base station" are claimed in the claims 5, 16 and 17.

The applicant argues on page 7, fourth paragraph that although Bladsjo may disclose a wireless packet-switched network, this reference does not disclose or suggest how the afore-referenced problem set forth in Applicant's specification and addressed by the subject claims, could be corrected, and the applicant further argues that Applicant's claims are amended to refer to a wireless terminal, which further distinguishes the subject claims from the teaching of the cited references. The examiner disagrees. Turner clearly teaches at col. 10, lines 22-23 in the passage "The wireless access gateway (also referred to herein as "a backhaul gateway", a wireless terminal means). Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in

view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Turner et al. (US 7,072,296).

For claim 5, Turner et al. disclose methods and apparatus for network signal aggregation and bandwidth reduction, comprising:

a means for reducing a number of bits in a voice sample included in a packet to be transmitted and a means for using said reduced bits of the voice sample for transmitting header field data of the same packet in a digital packet-switched cellular network (col. 19, lines 52-59).

For claim 16, Turner et al. disclose methods and apparatus for network signal aggregation and bandwidth reduction, comprising:

a controller (col. 14, lines 42-43) for processing an algorithm for reducing a number of bits in a voice sample included in a packet to be transmitted and using the reduced bits of the voice sample for transmitting header field data in the packet, the wireless terminal (figure 4, the wireless access gateway (also referred to herein as a

"backhaul gateway") configured to transmit the packet in a digital packet-switched cellular network (col. 19, lines 52-59).

For claim 17, Turner et al. disclose further comprising a memory for storing and retrieving the algorithm (col. 18, line 13).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-4, 6-9, 12-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. (US 7,072,296) in view of Bladsjo et al. (US 6,907,030).

For claims 1-4, 6-9 and 18-20, Turner et al. disclose methods and apparatus for network signal aggregation and bandwidth reduction, comprising:

if a wireless terminal (figure 4, the wireless access gateway (also referred to

herein as a "backhaul gateway") of a packet-switched cellular network (figure 1, col. 14, lines 9-10) estimates that a combined bit count of a voice sample and a header field of a voice packet exceeds an available transmission capacity of a transmission channel allocated to the terminal, then the terminal reduces a number of bits in the voice sample or steals at least one whole voice block (col. 19, lines 55-59); and

the wireless terminal (figure 4, the wireless access gateway (also referred to herein as a "backhaul gateway") uses the reduced voice sample bits for transmitting the header field data of the same packet, wherein the voice sample and the header field are transmitted in the transmission channel (col. 11, lines 32-36, and col. 19, lines 52-60).

However, Turner et al. do not expressly disclose the transmission channel in real time. In an analogous art, Bladsjo et al. disclose the transmission channel in real time (col. 1, lines 45-46).

Bladsjo et al. disclose wherein the reduction of the number of bits in the voice sample is performed only for packets transmitted at the beginning of a speech spurt (col. 9, lines 4-5 as set forth in claim 2); wherein a voice sample replacement is performed when no more than 500 ms have passed from a first voice activity detection included in the same speech spurt (col. 1, lines 59-61 and col. 9, lines 1-7 as set forth in claim 3); wherein the reduction of the number of bits in the voice sample is performed by replacing the contents of a voice packet with a NO_DATA block (col. 7, lines 29-31 as set forth in claim 4); wherein the means for reducing the number of bits in the voice sample included in the packet to be transmitted and means for using said saved bits for transmitting header field data of the same packet comprise: a voice coder for converting

the voice sample into a bit combination and for producing a voice activity detection indication (col. 1, lines 59-60), a bit rate and frame count calculation block for calculating the combined bit count for bits in the bit combination transmitted in the packet and bits in the header field after the voice activity detection indication, a frame stealing decision block for making a frame stealing decision based on the calculation result from the bit rate and frame count calculation block, and a real time protocol block generation and frame stealing block for replacing in the packet to be transmitted, subsequent to the frame stealing decision, bits in the bit combination produced from the voice sample (col. 7, lines 51-67 as set forth in claims 6 and 18); a means for reducing the number of bits in the voice sample only for packets transmitted at the beginning of a speech spurt (col. 9, lines 4-5 as set forth in claim 7); wherein the means for reducing a number of bits in the voice sample are arranged so as to perform a replacement when no more than 500 ms have passed from a first voice activity detection included in the same speech spurt (col. 1, lines 59-61 and col. 9, lines 1-7 as set forth in claim 8); wherein the means for reducing the number of bits in the voice sample, a bit rate and frame count calculation block is configured so as to replace the contents of the voice packet with a NO_DATA block (col. 7, lines 29-31 as set forth in claim 9); the controller arranged to reduce the number of bits in the voice sample only for packets transmitted at the beginning of a speech spurt (col. 9, lines 4-5 as set forth in claim 19); and further comprising a user interface for entering data that is provided to the controller and a transmitter through which the packets are transmitted (col. 6, line 31 as set forth in claim 20).

One skilled in the art would have recognized the transmission channel in real time, and would have applied Bladsjo et al.'s real time services in Turner et al.'s speech packets. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Bladsjo et al.'s system and method for decoding multiplexed, packet-based signals in a telecommunications network in Turner et al.'s methods and apparatus for network signal aggregation and bandwidth reduction with the motivation being to provide a real time service communication can proceed uninterrupted since it will be allocated communication resources regardless of whether or not any packets will be sent (col. 1, lines 51-54).

For claim 12, Turner et al. disclose when installed in the wireless terminal of the packet-switched cellular network (col. 14, lines 8-11).

For claim 13, Turner et al. disclose when installed in the wireless terminal of the packet-switched cellular network (col. 14, lines 8-11).

For claim 14, Turner et al. disclose when installed in the wireless terminal of the packet-switched cellular network (col. 14, lines 8-11).

For claim 15, Turner et al. disclose when installed in the wireless terminal of the packet-switched cellular network (col. 14, lines 8-11).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D. N./

Examiner, Art Unit 2472

/William Trost/

Supervisory Patent Examiner, Art Unit 2472